



NSW RURAL FIRE SERVICE

Lachlan Shire Council
PO Box 216
CONDOBOLIN NSW 2877

Your reference: CNR-48277 DA2022/050
Our reference: DA20221115011740-CL55-1

ATTENTION: Bryce Koop

Date: Thursday 13 July 2023

Dear Sir/Madam,

Development Application

s4.14 - Other - Electricity Generating Works

210 Lake Cargelligo Road Lake Cargelligo NSW 2672, 3//DP858374, 102//DP1253582

I refer to your correspondence dated 11/07/2023 seeking advice regarding bush fire protection for the above Development Application in accordance with Clause 55(1) of the *Environmental Planning and Assessment Regulation 2000*.

The New South Wales Rural Fire Service (NSW RFS) has considered the information submitted and provides the following recommended conditions:

General Conditions

Emergency and Evacuation

The intent of measures is to provide suitable emergency and evacuation arrangements for users of the development.

1. A Fire Management Plan (FMP) must be prepared in consultation with NSW RFS Mid Lachlan Valley Fire Control Centre. The FMP must include:

- 24 hour emergency contact details including alternative telephone contact;
- Site infrastructure plan;
- Fire fighting water supply plan;
- Site access and internal road plan;
- Construction of Asset Protection Zones (APZ) and their continued maintenance;
- Location of hazards (Physical, Chemical and Electrical) that will impact on fire fighting operations and procedures to manage identified hazards during fire fighting operations;
- Such additional matters as required by the NSW RFS District Office (FMP review and updates).

Asset Protection Zones

Postal address

NSW Rural Fire Service
Locked Bag 17
GRANVILLE NSW 2142

Street address

NSW Rural Fire Service
4 Murray Rose Ave
SYDNEY OLYMPIC PARK NSW 2127

T (02) 8741 5555
F (02) 8741 5550
www.rfs.nsw.gov.au

The intent of measures is to minimise the risk of bush fire attack and provide protection for emergency services personnel, residents and others assisting fire fighting activities. To achieve this, the following conditions shall apply:

2. From the start of building works, the property around the proposed solar farm must be managed as an inner protection area (IPA) for a distance of 10 metres, and property around the proposed energy storage systems must be managed as an inner protection area (IPA) for a distance of 50 metres in accordance with the requirements of Appendix 4 of *Planning for Bush Fire Protection 2019*. When establishing and maintaining an IPA the following requirements apply:

- tree canopy cover should be less than 15% at maturity;
- trees at maturity should not touch or overhang the building;
- lower limbs should be removed up to a height of 2 metres above the ground;
- tree canopies should be separated by 2 to 5 metres;
- preference should be given to smooth barked and evergreen trees;
- large discontinuities or gaps in vegetation should be provided to slow down or break the progress of fire towards buildings;
- shrubs should not be located under trees;
- shrubs should not form more than 10% ground cover;
- clumps of shrubs should be separated from exposed windows and doors by a distance of at least twice the height of the vegetation.
- grass should be kept mown (as a guide grass should be kept to no more than 100mm in height); and
- leaves and vegetation debris should be removed.

Access – Public Roads

The intent of measures is to provide safe operational access to structures and water supply for emergency services, while residents are seeking to evacuate from an area. To achieve this, the following conditions shall apply:

3. Access roads must comply with the following requirements of Table 5.3b of *Planning for Bush Fire Protection 2019*:

- minimum 5.5 metre carriageway width kerb to kerb;
- traffic management devices are constructed to not prohibit access by emergency services vehicles;
- maximum grades for sealed roads do not exceed 15 degrees and an average grade of not more than 10 degrees or other gradient specified by road design standards, whichever is the lesser gradient;
- all roads are through roads;
- dead end roads are not recommended, but if unavoidable, are not more than 200 metres in length, incorporate a minimum 12 metres outer radius turning circle, and are
- clearly sign posted as a dead end;
- one way only public access roads are no less than 3.5 metres wide and have designated parking bays with hydrants located outside of these areas to ensure accessibility to reticulated water for fire suppression;
- the capacity of perimeter and non-perimeter road surfaces and any bridges/causeways is sufficient to carry fully loaded firefighting vehicles; bridges/causeways are to clearly indicate load rating;
- hydrants are located outside of parking reserves and road carriageways to ensure accessibility to reticulated water for fire suppression;
- hydrants are provided in accordance with the relevant clauses of AS 2419.1:2005 - *Fire hydrant installations System design, installation and commissioning*; and
- there is suitable access for a Category 1 fire appliance to within 4 metre of the static water supply where no reticulated supply is available.

Water and Utility Services

The intent of measures is to minimise the risk of bush fire attack and provide protection for emergency services personnel, residents and others assisting fire fighting activities. To achieve this, the following conditions shall apply:

4. A 20,000 litre static water supply must be provided for fire fighting purposes and comply with the following:
- The tank must be located / designed so that a connection for fire fighting purposes is located within the inner protection area (IPA).
 - Underground tanks must be clearly marked, have an access hole of 200mm to allow fire fighting appliances to refill direct from the tank, and have a hardened ground surface for truck access within 4 metres of the access hole.
 - Aboveground tanks must be manufactured of concrete or metal. Raised tanks must have their stands protected.
 - Tanks on the hazard side of a building must be provided with radiant heat shielding to protect the tank from bush fire impacts and maintain safe access to the water supply for firefighters.
 - A standard 65mm metal Storz outlet with a gate or ball valve must be provided to the tank. The gate or ball valve, pipes and tank penetration of any tank must be adequate for full 50mm inner diameter water flow through the Storz fitting and made of metal.
 - All associated fittings to the tank must be metal.
 - Pumps where provided to supply water for fire suppression activities, must be a minimum 5hp or 3kW and petrol or diesel powered. The pump must be shielded from the direct impacts of bush fire. Any hose and reel must have an internal diameter of 19mm.
 - An SWS marker must be obtained from the local NSW RFS and positioned for ease of identification by fire fighting personnel and other users of the SWS. Markers must be fixed in a suitable location so as to be highly visible and be positioned adjacent to the most appropriate access for the static water supply.
 - All aboveground water pipes external to the building must be metal including and up to any taps/outlets/fittings.
 - Electrical transmission lines should be located underground where possible. Overhead electricity lines must have short pole spacing (i.e. 30 metres) except where crossing gullies, gorges or riparian areas. No tree may be closer to an electricity line than the distance set out in in ISSC3 Guideline for Managing Vegetation Near Power Lines.
 - Gas must be installed and maintained as set out in the relevant Australian Standard and all pipes external to the building must be metal including and up to any taps/outlets/fittings. Polymer-sheathed flexible gas supply lines must not be used.
 - Fixed gas cylinders must be kept at least 10 metres clear of flammable materials and be shielded on the hazard side. Connections must be metal. Cylinders near to a building must be have safety valves directed away from the building and be at least 2 metres from combustible materials.

Landscaping Assessment

The intent of measures is to minimise the risk of bush fire attack and provide protection for emergency services personnel, residents and others assisting fire fighting activities. To achieve this, the following conditions shall apply:

5. Landscaping within the required asset protection zone must comply with Appendix 4 of *Planning for Bush Fire Protection 2019*. In this regard, the following principles are to be incorporated:

- A minimum 1 metre wide area (or to the property boundary where the setbacks are less than 1 metre), suitable for pedestrian traffic, must be provided around the immediate curtilage of the building;
- Planting is limited in the immediate vicinity of the building;
- Planting does not provide a continuous canopy to the building (i.e. trees or shrubs are isolated or located in small clusters);
- Landscape species are chosen to ensure tree canopy cover is less than 15% (IPA), and less than 30% (OPA) at maturity and trees do not touch or overhang buildings;
- Avoid species with rough fibrous bark, or which retain/shed bark in long strips or retain dead material in their canopies;
- Use smooth bark species of trees species which generally do not carry a fire up the bark into the crown;
- Avoid planting of deciduous species that may increase fuel at surface/ ground level (i.e. leaf litter);
- Avoid climbing species to walls and pergolas;
- Locate combustible materials such as woodchips/mulch, flammable fuel stores away from the building;
- Locate combustible structures such as garden sheds, pergolas and materials such as timber garden furniture away from the building; and

- Low flammability vegetation species are used.

For any queries regarding this correspondence, please contact Rohini Belapurkar on 1300 NSW RFS.

Yours sincerely,

Kalpana Varghese
**Supervisor Development Assessment & Plan
Built & Natural Environment**